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US 8 March 2002 (08.03.2002)

(71) Applicant (for all designated States except US): TRUSTEES OF BOSTON UNIVERSITY [US/US]; 147 Bay State Road, Boston, MA 02215 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): HORENSTEIN, Mark, N. [US/US]; 40 Hastings Street, West Roxbury, MA 02132 (US).

(74) Agents: GAGNEBIN III, Charles, L., et al.; Weingarten, Schurgin, Gagnebin & Lobovici, LLP, Ten Post Office Square, Boston, MA 02109 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

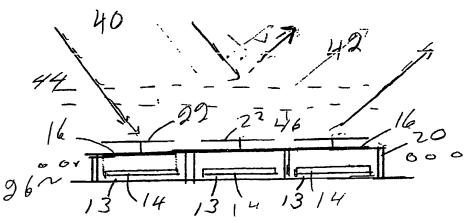
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

[Continued on next page]

(54) Title: METHOD FOR LINEARIZING DEFLECTION OF A MEMS DEVICE USING BINARY ELECTRODES AND VOLT-AGE MODULATION



(57) Abstract: A micromechanical device comprising one or more electronically movable structure sets comprising for each set a first electrode (14) supported on a substrate and a second electrode (16) supported substantially parallel from said first electrode. Said second electrode is movable with respect to said first electrode whereby an electric potential applied between said first and second electrodes causing said second electrode to move relative to said first electrode a distance X, (X), where X is a nonlinear function of said potential, (V). Means are provided for linearizing the relationship between V and X.



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B. FIELDS SEARCHED  Minimum documentation searched (classification system followed by classification symbols)					
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields					
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) USPTO APS WEST					
C. DOCUMENTS CONSIDERED TO BE RELEVANT					
Category*	Citation of document, with indication, where app	Relevant to claim No.			
X,P	US 6,498,870 B1 (WU et al) 24 December, 2002 (24.12.2002), Abstract.			1-16	
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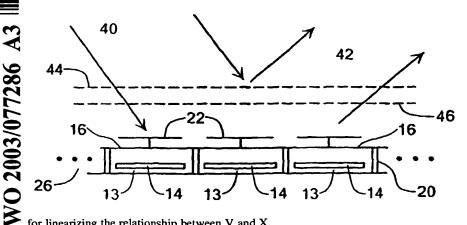
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